

CLAIMS

1. A mobile communication device capable of data communication through an ad hoc network, the device comprising:

5 a reception section for receiving inquiry information for inquiring whether to accept or deny participation in the ad hoc network, the inquiry information being sent from another mobile communication device;

10 a condition determination section for, after the reception section receives the inquiry information, determining whether at least one preset condition is satisfied; and

15 a transmission section for generating information for denying the participation in the ad hoc network based on a determination result of the condition determination section, and for transmitting the information to the another mobile communication device.

2. The mobile communication device according to claim 1, wherein the condition determination section determines whether 20 the at least one condition is satisfied based on a state of the mobile communication device.

3. The mobile communication device according to claim 2, further comprising a storage device for storing information 25 indicating whether to accept the participation in the ad hoc network

based on a user's input, wherein

when the condition determination section determines that
the information stored in the storage device indicates no
acceptance of the participation in the ad hoc network, the
5 transmission section generates the information for denying the
participation in the ad hoc network.

4. The mobile communication device according to claim 2,
further comprising a state detection section for detecting whether
10 the mobile communication device is in communication, wherein

when the condition determination section determines that
the state detection section has detected the mobile communication
device as being in communication, the transmission section
generates the information for denying the participation in the
15 ad hoc network.

5. The mobile communication device according to claim 2,
further comprising a storage device having stored therein a
scheduled time at which the mobile communication device engages
20 in communication, wherein

when the condition determination section determines that
the scheduled time stored in the storage device is reached after
a lapse of a predetermined period of time, the transmission section
generates the information for denying the participation in the
25 ad hoc network.

6. The mobile communication device according to claim 2,
further comprising a residual power detection section for detecting
a residual power of a battery in the mobile communication device,
5 wherein

when the condition determination section determines that
the residual power detected by the residual power detection section
is less than or equal to a predetermined reference value, the
transmission section generates the information for denying the
10 participation in the ad hoc network.

7. The mobile communication device according to claim 6,
further comprising:

a storage device having stored therein a database describing
15 a chargeable point for the mobile communication device; and
a position detection section for detecting a current position
of the mobile communication device, wherein

when the condition determination section determines that
a distance from the current position detected by the position
20 detection section to the chargeable point stored in the storage
device is less than or equal to a predetermined reference value,
the transmission section generates information for accepting the
participation in the ad hoc network if the residual power detected
by the residual power detection section is less than or equal to
25 a predetermined reference value.

8. The mobile communication device according to claim 2,
further comprising a storage section having stored therein an age
of a user of the mobile communication device, wherein

5 when the age of the user, which is stored in the storage
section, is equal to or more than a predetermined reference value,
the transmission section generates information for accepting the
participation in the ad hoc network regardless of another
condition.

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9. The mobile communication device according to claim 2,
further comprising a storage section having stored therein
information indicating a driving history of a user of the mobile
communication device, wherein

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when an age of the user, which is stored in the storage section,
is equal to or more than a predetermined reference value, the
transmission section generates the information for denying the
participation in the ad hoc network.

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10. The mobile communication device according to claim 1,
being mounted in a vehicle.

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11. A method for a mobile communication device to perform
data communication through an ad hoc network, the method
comprising:

a reception step for receiving inquiry information for inquiring whether to accept or deny participation in the ad hoc network, the inquiry information being sent from another mobile communication device;

5 a condition determination step for, after the inquiry information is received at the reception step, determining whether at least one preset condition is satisfied; and

10 a transmission step for generating information for denying the participation in the ad hoc network based on a determination result of the condition determination step, and for transmitting the information to the another mobile communication device.

12. The data communication method according to claim 11, being implemented by a computer program.

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13. The data communication method according to claim 12, wherein the computer program is stored in a storage medium.